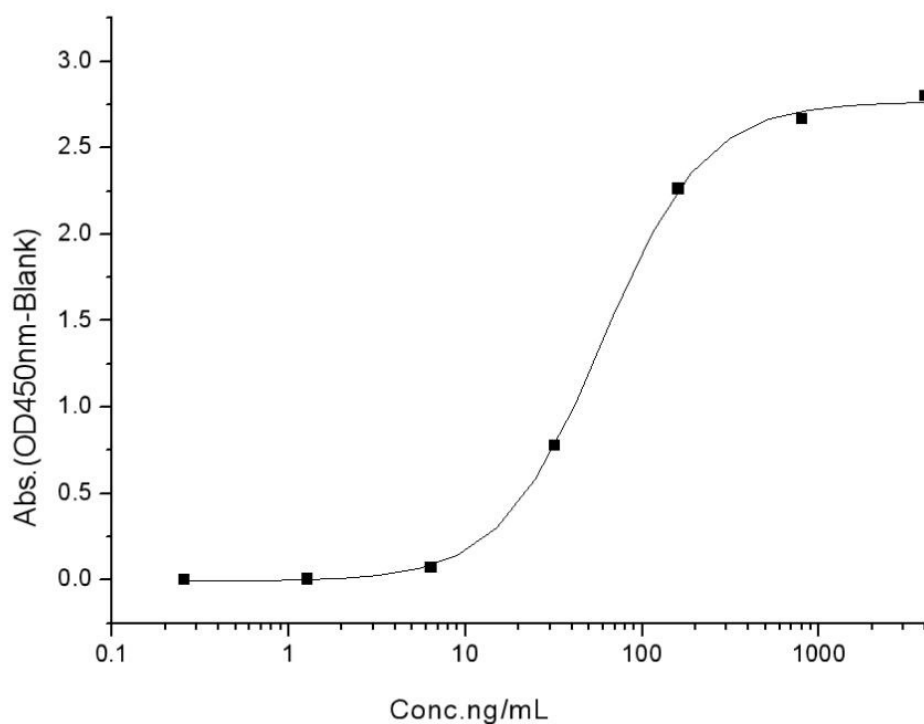


Recombinant Human ACE2 Protein, C-His-tagged, Biotinylated

Product Information

Cat	IMP-1784
Official Symbol	ACE2
Product Overview	<i>Recombinant human ACE2 (NP_068576.1) (Met1-Ser740) was expressed with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro.</i>
Description	<i>Angiotensin-converting enzyme 2 (ACE2), a first homolog of ACE, regulates the renin angiotensin system (RAS) by counterbalancing ACE activity. Accumulating evidence in recent years has demonstrated a physiological and pathological role of ACE2 in the cardiovascular, renal and respiratory systems. ACE2 also has an important role in blood pressure control. This enzyme, an homolog of ACE, hydrolyzes angiotensin (Ang) I to produce Ang-(1-9), which is subsequently converted into Ang-(1-7) by a neutral endopeptidase and ACE. ACE2 releases Ang-(1-7) more efficiently than its catalysis of Ang-(1-9) by cleavage of Pro(7)-Phe(8) bound in Ang II. Thus, the major biologically active product of ACE2 is Ang-(1-7), which is considered to be a beneficial peptide of the RAS cascade in the cardiovascular system. A physiological role for ACE2 has been implicated in hypertension, cardiac function, heart function and diabetes, and as a receptor of the severe acute respiratory syndrome coronavirus. In the acute respiratory distress syndrome (ARDS), ACE, AngII, and AT1R promote the disease pathogenesis, whereas ACE2 and the AT2R protect from ARDS. Importantly, ACE2 has been identified as a key SARS-coronavirus receptor and plays a protective role in severe acute respiratory syndrome (SARS) pathogenesis. Furthermore, the recent explosion of research into the ACE2 homolog, collectrin, has revealed a new physiological function of ACE2 as an amino acid transporter, which explains the pathogenic role of gene mutations in Hartnup disorder. This review summarizes and discusses the recently unveiled roles for ACE2 in disease pathogenesis.</i>
Expression System	HEK293
Species	Human
Tag	C-His
Predicted N Terminal	Gln 18
Form	<i>Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.</i>
Molecular Mass	<i>The recombinant human ACE2 consists of 734 amino acids and predicts a molecular mass of 85.1 kDa.</i>

Protein length	Met1-Ser740
Endotoxin	< 1.0 EU/ μ g of the protein as determined by the LAL method
Purity	> 95 % as determined by SDS-PAGE
Storage	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Bioactivity-ELI	



Immobilized SARS-CoV-2 Spike Protein (RBD, mFc Tag) at 2 μ g/mL (100 μ L/well) can bind human ACE2 protein (His tag), Biotinylated, the EC50 of human ACE2 protein (His tag), Biotinylated is 20-130 ng/mL.